BEFORE THE FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

Comments

In the Matter of:

The Federal Communications Commission (FCC) Notice of Proposed Rule Making Rule DA -13-40, Part VI, "December 31, 2016 Deadline for Narrowbanding Transition to 6.25 Kilohertz Bandwidth Technology," Request for Comments.

The Regional Wireless Cooperative (RWC) submits comments in response to the above request. The RWC requests to delay the narrow-banding mandate to December 31, 2024, or later.

I. BACKGROUND

The RWC is a cooperative body formed under intergovernmental agreement whose purpose is to provide public safety and support agencies with seamless, wide-area, operational and interoperational communications for all its Members through a governance structure founded on the principle of cooperation for the mutual benefit of all Members. Membership is open to all local, county, state, tribal and federal governmental entities. Additionally, the RWC provides for use by critical public safety support entities such as private ambulance services and hospital emergency rooms, and coordinates interoperability with non-member federal, state and local agencies.

The RWC is governed and managed by a Board of Directors consisting of one executive representative from each Member. The board directs the operation, maintenance, planning, design, implementation and financing of the RWC. Membership includes the majority of cities, towns and fire districts in the greater Phoenix metropolitan area. Current membership to the RWC, as of May 1, 2013 includes:

City of Avondale
Town of Buckeye
City of Chandler
Daisy Mountain Fire District
City of El Mirage
City of Glendale
City of Goodyear
Town of Guadalupe
City of Maricopa
Town of Paradise Valley
City of Peoria
City of Phoenix

City of Scottsdale
Sun City Fire District
Sun City West Fire District
Sun Lakes Fire District
City of Surprise
City of Tempe
City of Tolleson

The effect of the 2017, 700 MHz narrow-banding deadline on public safety operations in the Phoenix metropolitan area is described below to provide a background and a clear perspective on the impact of 700 MHz narrow-banding on this large system.

The RWC radio network is a large, public safety system based on the Project 25, Phase I Standard. The network is a Motorola ASTRO 25™, Integrated Voice and Data, trunked radio system. It operates in the 700/800 MHz frequency bands and uses standard simulcast, IP simulcast, and individual site trunking. The network consists of seven (7) major simulcast subsystems and twelve (12) Intelligent Site Repeaters (ISR's). Over 17,600 Member subscriber units (radios) are currently supported on this network. Additionally, there are more than 45 non-Member agencies on the network with over 8,300 radios, which use the network as interoperability participants. The RWC system exhibits a high level of spectral efficiency. Current channel loading exceeds the requirements of the Region 3 Plan for 6.25 kHz equivalency.

The system provides wide-area coverage across the entire metropolitan area. It is data capable, but at the current time is only used in a data capacity to provide encryption services. The RWC system has provided a platform on which to build interoperability with many other agencies. Because of the regional nature of the system, participating members have invested in excess of $146.1 million as well as over $18.4 million in state and federal grant funding to increase the regional use of the system and reduce the cost of membership in the RWC. The above funding is for infrastructure only; additionally, members have invested $80 M to $100 M for subscribers. Obviously, with the current fiscal environment of the country and impact on state and local agencies, any significant increase in infrastructure or subscriber unit costs would be detrimental to maintaining this network or unachievable for already highly stressed budgets.

Grants have been used to link the many dispatch centers or Public Safety Answering Points (PSAP's); add the City of Tempe to the network; increase system capacity to allow greater roaming and interoperability; add several mountaintop sites to be used for improved wide-area coverage, emergency backup and wide-area interoperability; provide connectivity to the City of Peoria's system; provide cache radios to be used for emergencies, and an emergency hospital intercommunications network.

The RWC system has been effectively used to provide interoperable communications for numerous special events in the Phoenix metropolitan area. The system is commonly used for coordinating the movements and security of government officials, including several presidential and vice-presidential visits to the area which

involved many RWC Members, as well as non-member agencies. The system provides support for the annual Fiesta Bowls, BCS football games, PGA Waste Management Phoenix Open golf tournaments, NASCAR races, and was public safety's primary infrastructure for the 2008 Super Bowl, 2009 NBA and 2011 MLB All Star games. The City of Glendale has again been selected as the site for the 2015 Super Bowl and will rely on this network for this high security world-wide event. The 2008 Super Bowl, in particular, clearly demonstrated the need for a truly regional radio system and has prompted more discussions between the metropolitan cities, counties and state, on how to effectively use the RWC and other networks while minimizing the costs associated with maintaining individual, disparate systems.

The other regional systems currently operating or in development within the State of Arizona include the Pima County Wireless Integrated Network (PCWIN), Yuma Regional Communications System (YRCS), Maricopa County's Regional Public Safety Radio System and the State of Arizona's Department of Public Safety (DPS). DPS provides radio and data communications needs for all state-level public safety and transportation agencies. These systems, although geographically separate and diverse, are interdependent and supportive of enhanced interoperability as a core component of modern, contemporary public safety operations locally and statewide.

II. DISCUSSION

As is the case with most governmental entities across the country, the above agencies are facing significant budgetary challenges due to the declining economy. Reductions in revenue have prompted corresponding consolidations and even reductions in service delivery. Maintaining basic government services as well as radio system infrastructure and subscriber equipment (radios) are major challenges for the above agencies for many years to come. System changes of this type require agencies to plan ahead extensively, some requiring 5 years and longer, which may be especially difficult when budgets are being significantly reduced due to major economic conditions.

Additionally, in systems of this size, a conversion requires several years of coordination. This rule requires that a majority of existing system equipment and subscriber handheld units are not just converted, but replaced. Even when considered on a system-by-system basis, the impacts to each system are large, but when the number of interoperability users is also considered, the changes to one system will significantly impact users in many other allied local, state, tribal or federal agencies.

The RWC is currently in the process of updating its infrastructure to make it capable of supporting 700 MHz narrow-band operations. This project will costs $25.4 M and take three years to accomplish. However, to actually implement narrow-banding will still take another $17.7 M in software and hardware, as well as replacing the RWC's entire subscriber fleet, at an estimated cost of about $80 M. As described above, the current economic climate makes it impossible for our jurisdictions to fund such large and

costly endeavors, without a much longer period within which to plan and secure the necessary funding.

III. RESPONSE TO THE SPECIFIC QUESTIONS POSED BY THE FCC IN THE NPRM (Text in blue represents questions extracted from the NPRM)

". . . what is the most appropriate deadline for licensees operating on 700 MHz narrowband channels to transition to 6.25 kilohertz technology?

The RWC requests the Commission modify the current rules addressing spectrum efficiency, by extending the December 31, 2016 deadline to December 31, 2024. This date is consistent with other entities' requests and planned requests (State of Louisiana, Region 3 RPC respectively). If the current deadline is not extended, it will have a significant negative impact for the majority of members and users of the RWC.

What factors should we consider in setting a new deadline?

1. 700 MHz frequencies are being allocated effectively and used efficiently in Region 3.
2. TDMA standards have not yet been fully ratified and consequently, there is a lack of available products; specifically subscribers, which comply with the standard.
3. Product lifecycles, costs and availability are such that agencies are significantly challenged to maintain their infrastructure and subscribers in sound, up-to-date working order to effectively support public safety operations.
4. Frequency management, including narrow-banding is best managed regionally by the local agencies to best fit the needs of the area.
5. TDMA conversion for systems using a combination 700 MHz and 800 MHz require more changes than just to the 700 MHz frequencies.

We previously concluded that the deadline should be driven by equipment availability, and not by the DTV transition. Does that conclusion warrant revisiting, and if so, why?

We do not think the DTV transition needs to be considered.

Should we revisit our determination in 2002, based on the comments of APCO and others, that "ten years is currently the generally accepted life span for many elements of a radio system"?

Due to the high cost of large systems, jurisdictions must make these systems last much longer than ten years. While many elements of a system may have much shorter lifecycles, such as network equipment and subscribers, and may require regular, ongoing replacement, state, county and large metropolitan systems may easily cost upwards of $100 M, and these entities cannot afford to replace such systems every ten years. Even

subscribers which typically had lifespans of five (5) to seven (7) years, must now last a minimum of seven (7) to ten (10) years due to their high cost.

Should present or anticipated future funding limitations be relevant, or would it be more appropriate to address such cases through a waiver process?

Based on the current economic climate and the ever growing pressures on public agencies to do more with less and be more efficient, we believe that funding limitations are critical and must be considered.

If we extend the December 31, 2016 deadline, should we also extend the interim December 31, 2014 deadline, and if so, should the interim deadline again be set to two years prior to the final deadline?

We concur with the National Regional Planning Commission's recommendation (filed with the FCC on June 30, 2012) to set the interim date two years prior to the final deadline.

To better evaluate these alternatives, we encourage public safety agencies and manufacturers to update the record with respect to the current status of the development of the Phase 2 standard and the commercial availability of dual-mode and 6.25 kilohertz equipment that is fully tested and ready for deployment in the 700 MHz band. Is such equipment, as Motorola suggests, subject to future modification to render it compliant with the Project 25 Phase 2 standard?

In our evaluation of radio subscribers and their performance on the RWC system, we have found that while several are providing models that are Phase 2 capable, many are selling non-Phase 2 compliant versions, with the promise of relatively inexpensive upgrades in the future to bring them into compliance. We are also finding that even with radios that are compliant, the radios still fall short in some areas such as Over-The-Air-Rekeying (OTAR) and system affiliation.

We also seek comment on whether other factors, aside from the commercial availability of 6.25 kilohertz or dual-mode equipment, may have caused licensees to continue purchasing and deploying equipment that is limited to utilizing 12.5 kilohertz bandwidth. For example, has the extended DTV transition period and/or the timing of available Federal grant monies caused public safety entities to purchase and deploy 12.5 kilohertz equipment in lieu of waiting for 6.25 kilohertz equipment to become available?

These factors have not affected our decisions.

Finally, we seek comment on whether in lieu of extending the narrowbanding deadline, we should eliminate it and no longer require 6.25 kilohertz kilohertz narrowbanding in the 700 MHz narrowband spectrum. As noted above, in 2010 the Public Safety and Homeland Security Bureau issued a Public Notice seeking comment on whether public safety should have the option of using 700 MHz narrowband spectrum for broadband

services. Although the Public Notice did not propose any change to the current 700 MHz narrowband rules, the Bureau sought information on the feasibility of opening the band to flexible use, both in the short term and the long term, and on potential conditions or restrictions that would be needed to prevent broadband operations in the band from causing harmful interference to narrowband operations. In seeking comment on these issues, the Bureau specifically asked whether the Commission should reconsider the 700 MHz narrowbanding requirement and whether public safety resources would be better spent transitioning 700 MHz narrowband operations onto a broadband platform.

We believe that the narrow-banding requirement is still necessary, especially in metropolitan areas, but the deadline should be extended. While much progress has been made towards establishing a nationwide broadband network for public safety, we do not think this technology will be ready for many years to support critical voice traffic. The RWC does not feel that it would be wise to rely solely on broadband technologies for mission critical communications but rather feels that there is merit to the redundancy that a separate narrowband network would provide.

In light of these developments, we seek comment on whether the long-term future of the 700 MHz narrowband spectrum band would be best served by suspending or eliminating mandatory migration to 6.25 kilohertz technology. Could the spectral efficiency benefits of narrowbanding be outweighed by the potential inefficiency of requiring public safety agencies to devote resources in this band to a technological path that may not meet their long-term needs?

No comment.

Conversely, do the benefits derived from enhanced efficiencies of narrowband technology outweigh the costs of maintaining the current framework in the interim?

No comment.

If we were to eliminate mandatory narrowbanding, would there be sufficient channel capacity using 12.5 kilohertz channels to meet the needs of public safety entities? For instance, what effect would suspending or eliminating the mandatory migration to 6.25 kilohertz have on T-Band licensees (470-512 MHz) who may seek to move to the 700 MHz band as a result of the relocation required by Section 6103 of the Public Safety Spectrum Act?

While there are no T-band issues in Region 3 the current trend is for smaller rural agencies to remain on their legacy UHF/VHF systems due to the their superior propagation in rugged terrain and the cost of moving to trunked 700/800 MHz systems. These agencies continue to grow however and there is a dire need for more UHF/VHF spectrum to meet these needs. Counties in Region 3 are extremely large. This, along with its mountainous and desert topography, have made it difficult to coordinate UHF/VHF resources efficiently. This is especially true in areas adjacent to major population centers such as the Phoenix metro area. This need will eventually drive agencies to construct

systems in the 700/800 MHZ band creating more channel demand in the future. The RWC's regional sharing of trunked resources can ease this demand somewhat but future pressure on channel demand will eventually result in the need for mandatory narrow banding.

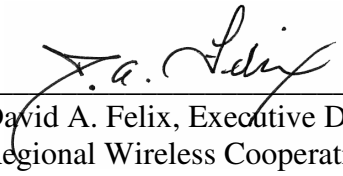
Furthermore, could licensees' needs be addressed by encouraging narrowbanding to 6.25 kilohertz on a voluntary basis without requiring it? How would interoperability in the band be affected by such an approach? Are there other potential costs and benefits that we should consider?

Making this voluntary could have negative impacts, especially in areas where channel capacity is at a premium. If narrow-banding is voluntary, then use of the band by others could be held up by those who do not wish to narrow-band their channels. Interoperability could indeed be affected, due to the high cost of providing dynamic dual mode switching between Phase 1 and 2.

V. SUMMARY

Given all of the above we recommend the FCC to delay the 700 MHz narrow-banding mandate to December 31, 2024 or later.

Respectfully,



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